



More than **sensors + automation**



# Pressure

Innovative solutions to meet the most stringent standards



**Contact:**

Phone: +49 661 6003-715

e-mail: [pressuremeasurement@jumo.net](mailto:pressuremeasurement@jumo.net)

## Dear Readers,

Sensor technology is one of our core competencies. This particularly applies to pressure sensor technology as we produce both the pressure sensors and the electronics ourselves. The high quality of our products is the result of more than 30 years of knowledge and experience – and the motivation to continually do even better.

We attach just as much importance to new developments as to the continuous improvement of existing products. At the same time, we continuously streamline our production methods to ensure that we can stay competitive and flexible. As a universal supplier for all industrial sectors, JUMO develops standard devices and customized versions both in small and large quantities with the same diligence and commitment.

Why is this diversity so important to us? Because we do not only want to be among the best in Germany but in all other markets throughout the world. Therefore we make sure that all our products meet the current standards, directives and laws.

This brochure gives an overview of JUMO's extensive range of products for pressure measurement technology. However, please feel free to contact us so that we can find special solutions tailored to your specific requirements.

You will find detailed information about our products under the specified type/product group number at [www.jumo.net](http://www.jumo.net).

## Contents



Pressure measurement	4
JUMO sensor and measuring system production	6
Products	8
JUMO MIDAS series	8
JUMO dTRANS p30 series	12
JUMO DELOS series	14
JUMO dTRANS p02/p20 series	16
JUMO differential pressure transmitters	20
JUMO CANtrans series	22
JUMO PEKA and diaphragm seals	24
Services & Support	26

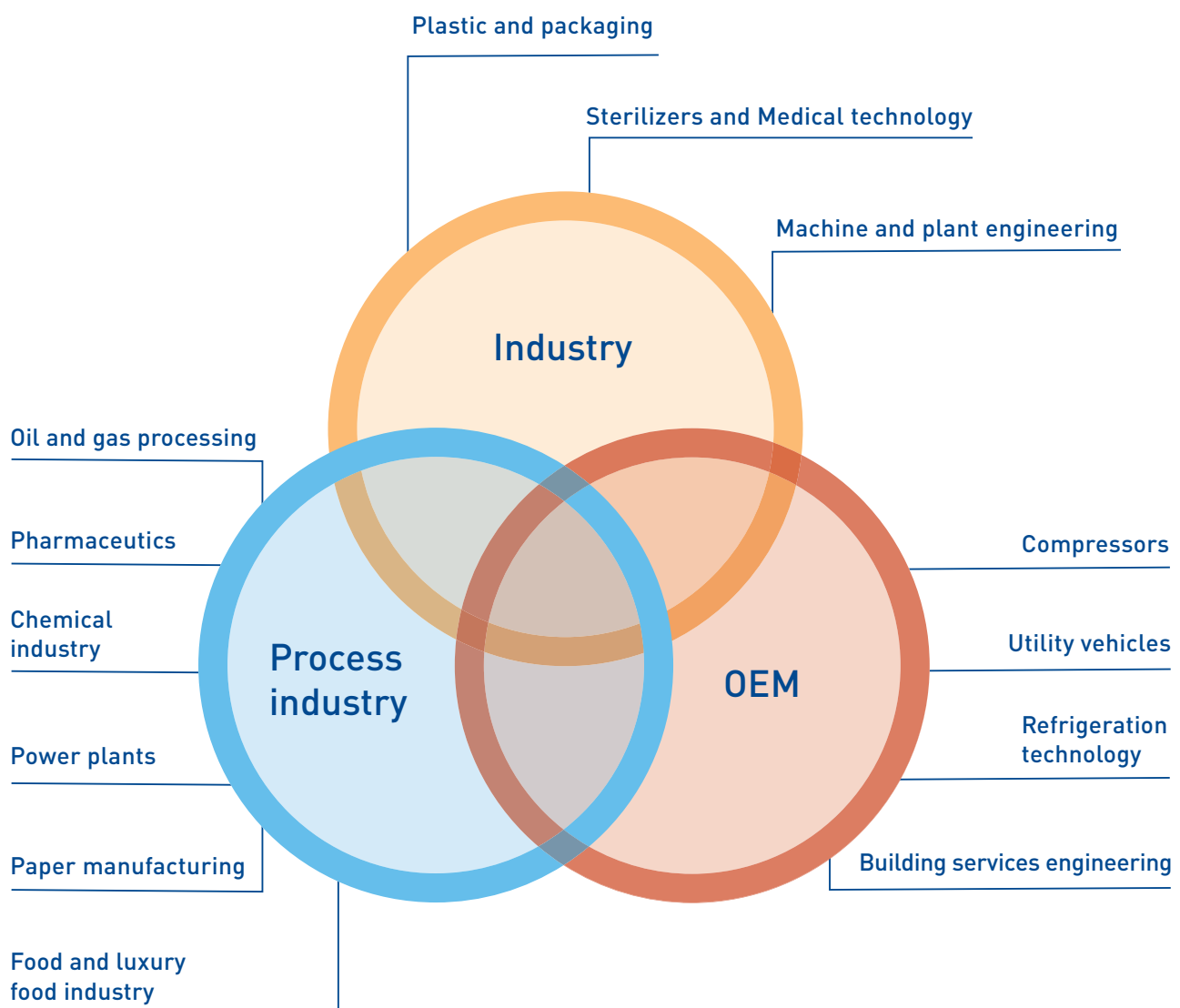


# Pressure measurement

Pressure measurement is one of the most important tasks in virtually all industrial sectors. High-quality pressure measuring devices ensure reliable and safe measuring results. JUMO supplies precision solutions for the process industries, hygienic solutions for the food and pharmaceutical sectors, universal solutions for machine and plant engineering, large quantities for the OEM market and even modules for its competitors. JUMO can also provide the right solution for your specific application.



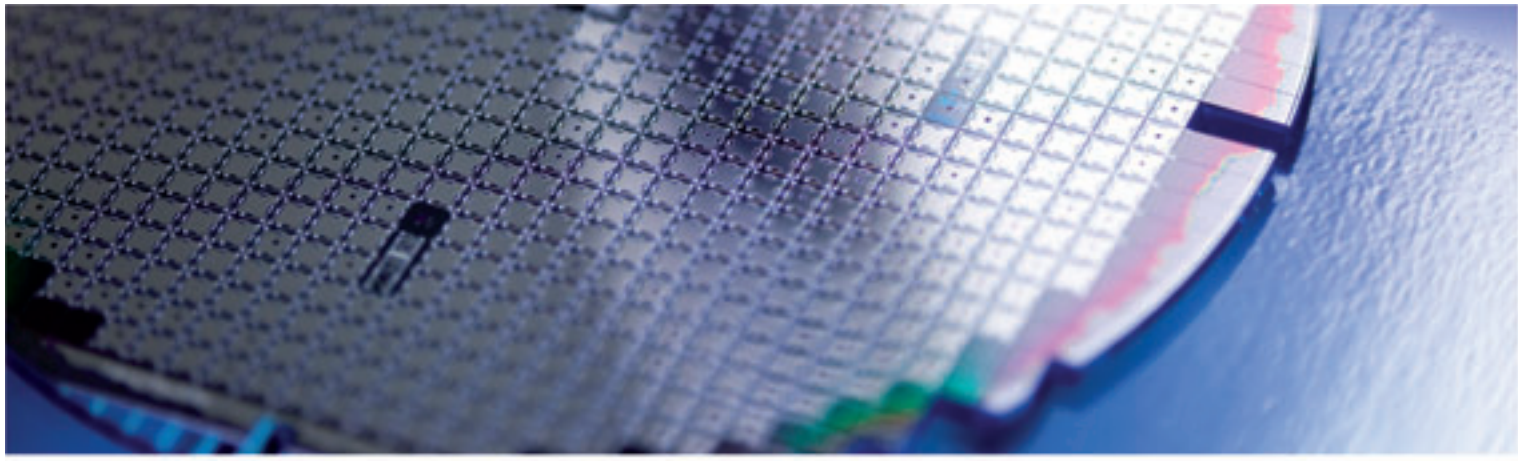
## The industries



The right solution for every task: Thanks to the wide range of different devices, we can offer the perfect sensors for machine and plant engineering, the process industry and

the OEM sector. In addition to the standard devices, JUMO offers individual customized versions for special applications.





# JUM0 sensor and measuring system production

Due to our modern production lines, many years of experience and a huge variety of manufacturable sensor technologies, we can offer you maximum quality and flexibility with pressure sensors and measuring systems designed and patented by us.



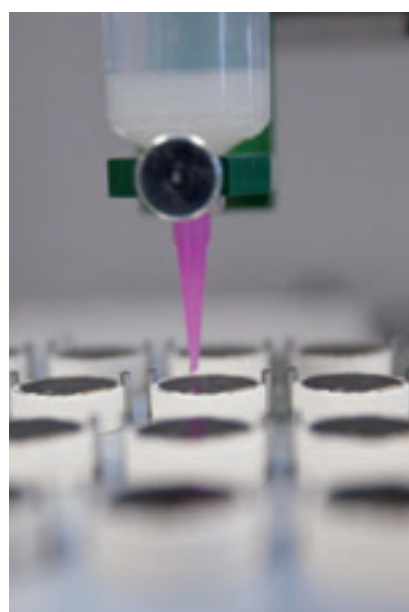
## JUMO sensor and measuring system production



Work in a clean room  
for pressure sensors



Production:  
silicon pressure sensors



Production:  
ceramic pressure sensors

### Quality through attention to detail

Our products set the benchmark for precision. This results from the extensive experience of our highly qualified staff and close cooperation with our customers in development and production. We are familiar with the complex interrelationships and therefore consider quality to be a process that needs continuous attention and adjustment: starting with the new development of products on the basis of the sensors produced in our own factory, the monitoring of the manufacturing process on state-of-the-art production lines, through to the final 100% inspection of each device.

### Flexibility

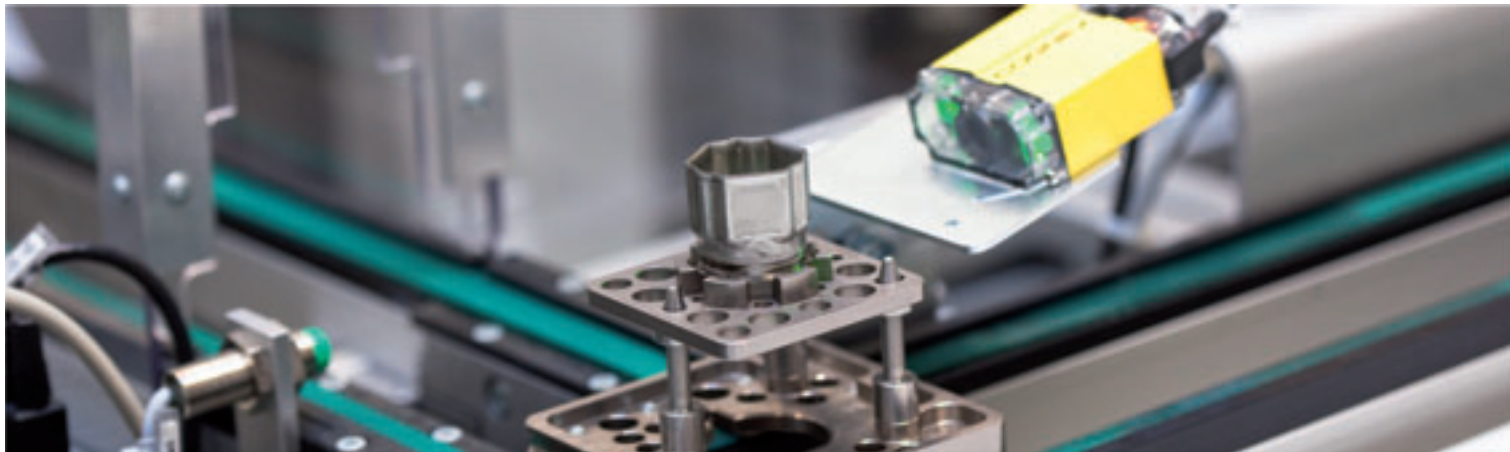
At JUMO we develop, manufacture and test our own new products and customized versions. Our high degree of vertical integration allows management of the quality process and

leads to increased flexibility, enabling us to give special consideration to customer requirements and application-orientated conditions.

### Diversity and expertise

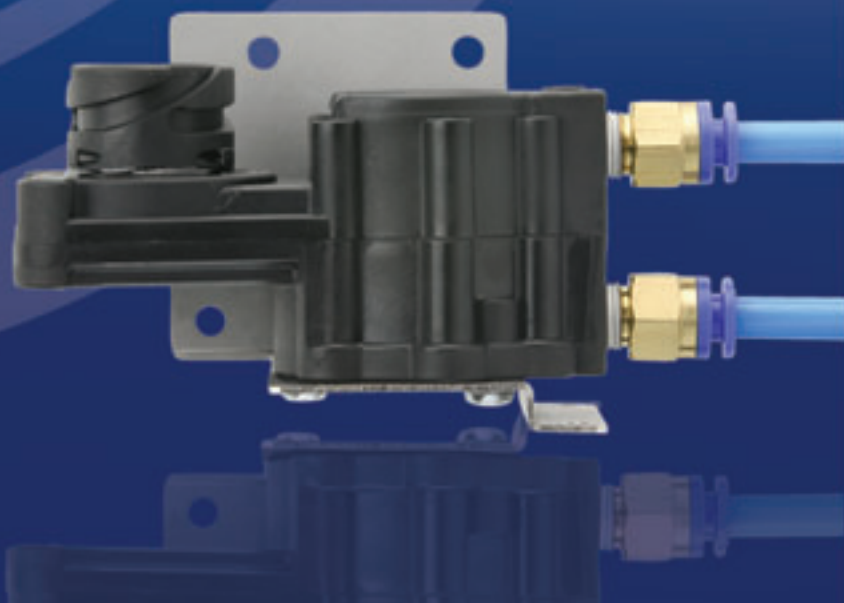
Even the sensor itself, the basis of any pressure measuring device, can be individually adapted to your applications and requirements. You can choose between different measuring systems such as silicon piezoresistive, metal thin film, ceramic thick film or ceramic capacitive, and additional selection criteria such as size and materials.

Our sensors are available in various configuration levels as modules and in complete devices.



# JUMO MIDAS series

The pressure transmitters of the MIDAS series are the ideal solution if you are looking for a reliable, compact measuring system that offers long-term stability and excellent value for money. The high quality of this series is ensured by production on fully automatic production lines and a final 100% inspection. The extensive spectrum of measuring ranges, process connections and electrical connections allows optimum adaptation to every measuring task.





## Examples of applications



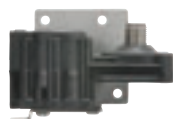
Filtration plant



Combustion engine

### JUMO MIDAS DP10

OEM differential pressure transmitter  
type 401050



### JUMO MIDAS C08

OEM pressure transmitter  
type 401002



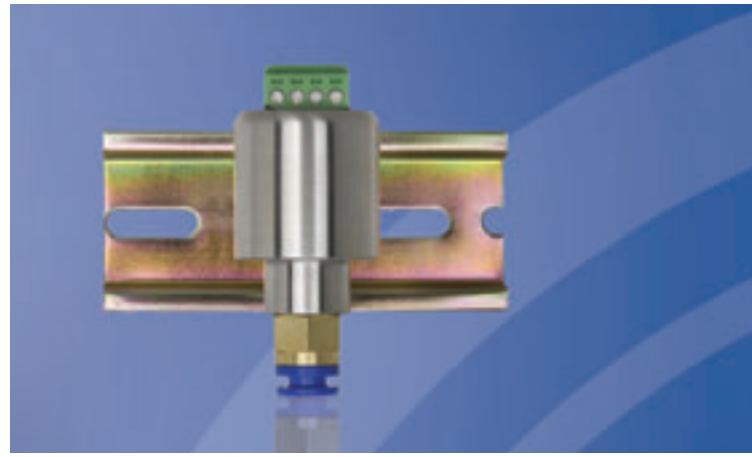
### Filter monitoring with JUMO MIDAS DP10

Filters are used for cleaning liquid and gaseous media to achieve specific product properties or to prepare them for further processes. The filter has to be cleaned or replaced at regular intervals as soiled filters reduce the performance of systems and increase their energy consumption. Differential pressure measurement upstream and downstream of the filter can be used to monitor the degree of clogging of the filter. Depending on the measuring task of MIDAS DP 10 within a system, it is possible to adjust the pump capacity, send a signal for filter maintenance or activate thermal cleaning of a particulate filter on the basis of the differential pressure measured. These filters can be used for example in the intake channel of compressors or in the diesel particulate filter of a vehicle.

### Pressure monitoring in the cooling circuit of an internal combustion engine using JUMO MIDAS C08

The lubrication and cooling of an internal combustion engine is vital for its safe and reliable operation. The correct oil pressure is important for lubrication and temperature compensation, otherwise increased wear or damage to bearings, camshaft or pistons can result.

To achieve the desired cooling water temperature in an internal combustion engine, the cooling system is pressurized, increasing the boiling point of the water to approx. 115°C. Without the overpressure, gas bubbles form in the cooling system, interrupting the cooling water flow and causing the temperature to exceed the permissible value. JUMO MIDAS C08 can be used to monitor this overpressure. Cooling circuits are used for example in the commercial vehicle industry and in co-generation plants.



## OEM pressure transmitter series JUMO MIDAS

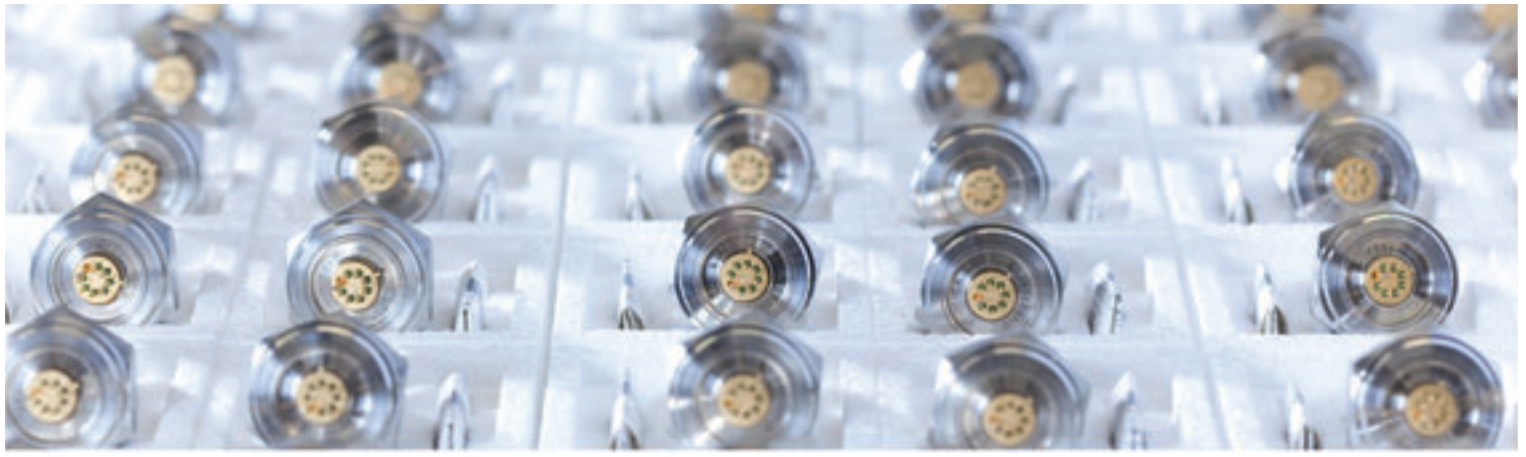
					
OEM pressure transmitter		Basic	Standard	Low pressure	High pressure
Type/ Data Sheet Designation		401002 JUMO MIDAS C08	401010 JUMO MIDAS S05	401011 JUMO MIDAS S06	401005 JUMO MIDAS HP
Application	Facility management	•			
	Hydraulics				•
	Industry	•	•	•	•
	Air conditioning technology and refrigeration engineering		•	•	
	Compressors	•		•	•
	Co-generation (combined heat and power)	•	•	•	
	Railway				
	Medical technology		•	•	
	Pneumatics	•			
	Packaging and filling	•	•	•	
	Wind power		•		•
Technical data	Input	rel 1.6 to 60 bar	rel, abs 1.6 to 60 bar	rel 100 mbar to 10 bar	rel 100 to 600 bar
	Measuring system	Elastomer seal	welded	welded	welded
	Temperature of medium	–20 to +125 °C	–40 to +125 °C	–20 to +100 °C	–30 to +125 °C
	Accuracy (linearity)	0.25 %	0.2 % to 0.3 %	0.2 % to 0.3 %	0.5 %
	Output	4 to 20 mA 2-wire, DC 0 to 10 V 3-wire, DC 0.5 to 4.5 V 3-wire, DC 1 to 5(6) V 3-wire	4 to 20 mA 2-wire, DC 0 to 10 V 3-wire, DC 0.5 to 4.5 V 3-wire, DC 1 to 5(6) V 3-wire	4 to 20 mA 2-wire, DC 0 to 10 V 3-wire, DC 0.5 to 4.5 V 3-wire, DC 1 to 5(6) V 3-wire	4 to 20 mA 2-wire, DC 0 to 10 V 3-wire, DC 0.5 to 4.5 V 3-wire, DC 1 to 5(6) V 3-wire
	Process connection	Thread, threaded union for pipe/hose	Thread	Thread	Thread



## OEM pressure transmitter series JUMO MIDAS



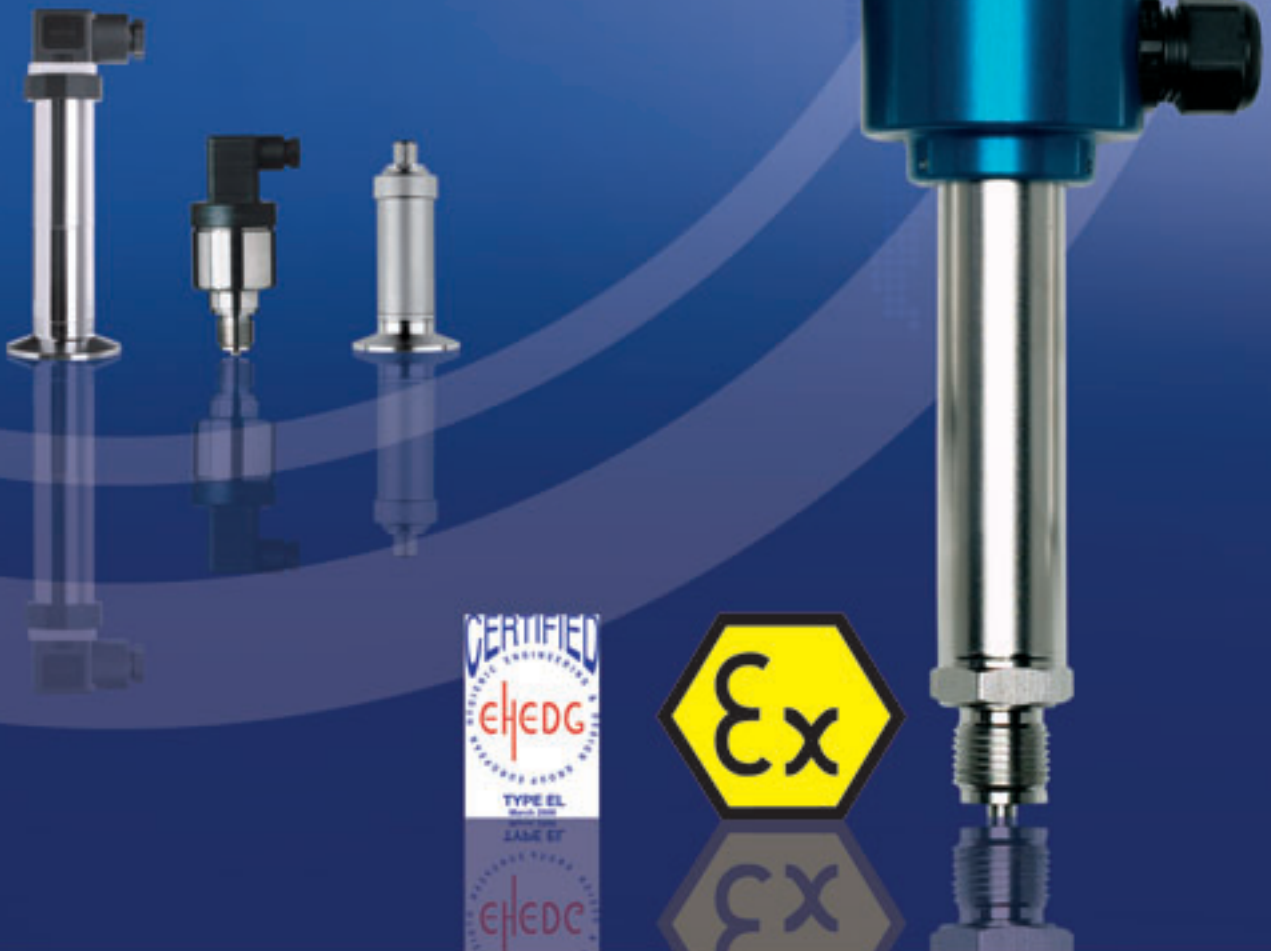
OEM pressure transmitter		Railway	Cabinet	Differential pressure
Type/ Data Sheet Designation		401008 JUMO MIDAS SR	401009 JUMO MIDAS DR	401050 JUMO MIDAS DP10
Application	Facility management			•
	Hydraulics			
	Industry		•	•
	Air conditioning technology and refrigeration engineering			•
	Compressors		•	•
	Co-generation (combined heat and power)			•
	Railway	•		
	Medical technology			
	Pneumatics		•	
	Packaging and filling			•
	Wind power			
Technical data	Input	rel, abs 2.5 to 60 bar	rel 1.6 to 16 bar	DP 400 mbar to 16 bar
	Measuring system	welded	Elastomer seal	Elastomer seal/ welded
	Temperature of medium	-40 to +125 °C	-15 to +60 °C	-15 to +100 °C
	Accuracy (linearity) of the measuring range	0.2 % to 0.3 %	0.5 %	0.5 %
	Output	4 to 20 mA 2-wire, DC 0 to 10 V 3-wire, DC 0.5 to 4.5 V 3-wire, DC 1 to 5(6) V 3-wire	4 to 20 mA 2-wire, DC 0 to 10 V 3-wire, DC 0.5 to 4.5 V 3-wire, DC 1 to 5(6) V 3-wire	4 to 20 mA 2-wire, DC 0 to 10 V 3-wire, DC 0.5 to 4.5 V 3-wire, DC 1 to 5(6) V 3-wire
	Pressure connection	Thread	Female Rp 1/8, threaded union for pipe/hose	Thread, Stainless steel socket, Pipe screw connection



# JUMO dTRANS p30 series

Our JUMO dTRANS p30 series stands out for its flexibility.

Its universal use is reflected in the large selection of measuring ranges, process connections and electrical connections. With its front-flush, sealless measuring system and its high temperature variant for use in media with temperatures of up to 200°C, it also meets the requirements of hygienic applications. This flexible series is complemented by a variant with explosion protection so that virtually all areas of application are covered.





## Process pressure transmitter series JUMO dTRANS p30



	Pressure transmitter	Standard	High temperature	Gases	EX version	Small ranges
	Type/ Data Sheet Designation	404366 JUMO dTRANS p30	402050 JUMO dTRANS p31	402051 JUMO dTRANS p32	404753 JUMO dTRANS p33	404327 JUMO dTRANS ceramic
Application	Biogas plants	•				•
	Chemical engineering	•	•			•
	Compressed air control	•		•		
	Food and pharmaceuticals	•	•		•	•
	HVAC technology	•		•		
	Industry, universal	•			•	
	Laboratory technology	•		•		
	Medical technology	•	•			•
	Clean room technology			•		
	Steril./autoclaving		•			
Technical data	Input	rel, abs 250 mbar to 600 bar	rel, abs 1 to 60 bar	rel 40 mbar to 600 bar	rel, abs 250 mbar to 600 bar	rel 50 mbar to 1 bar
	Temperature of medium	–30 to +120 °C	–30 to +200 °C	–30 to +120 °C	–40 to +200 °C	–20 to +80 °C
	Accuracy (linearity)	0.2 to 0.5 %	0.2 to 0.5 %	0.5 %	0.5 %	0.2 %
	Output	4 to 20 mA 2-wire, 0(4) to 20 mA 3-wire, DC 0.5 to 4.5 V 3-wire, DC 0 to 10 V 3-wire, DC 1 to 5(6) V 3-wire	4 to 20 mA 2-wire, 0(4) to 20 mA 3-wire, DC 0.5 to 4.5 V 3-wire, DC 0 to 10 V 3-wire, DC 1 to 5(6) V 3-wire	4 to 20 mA 2-wire, 0(4) to 20 mA 3-wire, DC 0.5 to 4.5 V 3-wire, DC 0 to 10 V 3-wire, DC 1 to 5(6) V 3-wire	4 to 20 mA 2-wire	4 to 20 mA 2-wire, DC 0.5 to 4.5 V 3-wire
	Process connection	Thread, hygienic connections, JUMO PEKA, Diaphragm seal	Thread, hygienic connections, JUMO PEKA, Diaphragm seal	Thread, hose connection	Thread	Thread, hygienic connections

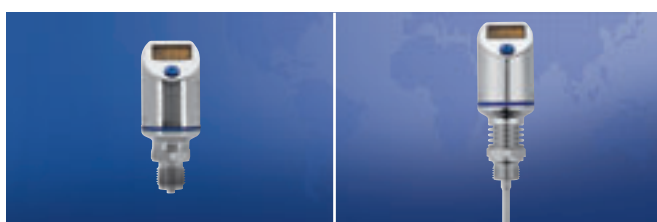


# JUMO DELOS series

Reduced costs thanks to measuring range scaling: The DELOS series allows various measuring tasks to be performed with one device. Configuration is performed directly at the device or using a convenient setup program. A large, illuminated LCD display shows the setting parameters during configuration, and the current measured value and change-over contact status during operation. For enhanced legibility the device can be turned through  $\pm 160^\circ$  and the display can be rotated through  $180^\circ$  when installed overhead. Due to its easy-clean design and front-flush, sealless measuring system, the DELOS series is also suitable for hygienic applications.



### Precision transmitter for pressure or temperature



Precision transmitter		Pressure, filling level	Temperature
Type/ Data Sheet Designation		405052 JUMO DELOS SI	902940 JUMO DELOS T
Application	Food and pharmaceuticals	•	•
	CIP/SIP systems	•	•
	Machine and plant engineering	•	•
	Refrigeration and air conditioning system construction	•	•
	Special features	programmable, switching output, measuring range scaling 1:4, selectable unit display, case and protection fitting made of stainless steel (316L)	programmable, switching output, selectable unit display, case and protection fitting made of stainless steel (316L)
Technical data	Input	rel, abs 400 mbar to 600 bar	–50 °C to +150 °C –50 °C to +260 °C with extension tube –50 °C to +500 °C with wireless RTD temperature probe
	Admissible temperatures	Ambient: –25 to +75 °C Medium to be measured: –25 to +200 °C	Ambient: –25 to +75 °C
	Accuracy	Linearity of the measuring range: 0.1 to 0.15 %	Tolerance class: Class A (optionally class AA)
	Output	1 x PNP switching output, 2 x PNP switching output, 1 x PNP switching output and 1 x analog output (optionally: 0(4) to 20 mA, 0 to 10 V)	
	Process connection	Thread, hygienic connections, Diaphragm seals, JUMO PEKA	Thread, hygienic connections, screw connections, JUMO PEKA



# JUMO dTRANS p02/p20 series

The programmable pressure transmitter from JUMO combines maximum precision with simple operation.

You will be able to find the optimum solution to your task, whether it involves absolute pressure, differential pressure, filling level or flow rate. We provide an extensive selection of process connections and special approvals.





## Convenient operation with reduced effort

### JUMO setup program for the HART interface



Parameterization of the device using the setup program



Recording of measured values

**JUMO dTRANS p02**  
Process pressure transmitter  
type 404385



**JUMO dTRANS p20**  
Process pressure transmitter  
Typ 403025



### Commissioning with minimum effort

Commissioning can be performed quickly and reliably using the rotary knob or membrane keys.

The devices can also be easily operated in explosive areas, without even having to open the case.

#### Some device features:

- clear LCD display as standard
- high precision and stability
- low temperature drift
- reduced stockkeeping due to variable setting on the device
- high temperature range
- robust aluminum or stainless steel case

### Our setup program offers numerous functions for operation via the interfaces:

- convenient parameterization of all device parameters
- saving or printing of parameters for project documentation
- clear online display of actual values and device status
- monitoring and documentation of measured pressure values and sensor temperature for a prolonged period
- plain text display of all status messages



## Process pressure transmitter series JUMO dTRANS p02



Type/ Data Sheet Designation		404385 dTRANS p02	404382 dTRANS p02 DELTA	404387 dTRANS p02 ceramic
Application	Ex d			•
	Ex ia	•	•	
	Process pressure	•		
	Differential pressure			
	Flow rate		•	
	Filling level	•	•	•
	Special features	maximum precision, programmable, Stainless steel sensor, Aluminum case	maximum precision, programmable, Stainless steel sensor, Aluminum case	maximum precision, programmable, Ceramic sensor, Aluminum case
Technical data	Input min. max.	rel, abs 20 mbar 600 bar	DP 12 mbar 25 bar	rel 20 mbar 25 bar
	Temperature of medium	–40 to +200 °C	–40 to +120 °C	–40 to +100 °C
	Accuracy (linearity)	0.1 %	0.1 %	0.1 %
	Output	4 to 20 mA 2-wire, HART	4 to 20 mA 2-wire, HART	4 to 20 mA 2-wire, HART
	Process connection	Thread, hygienic connections, JUMO PEKA, Diaphragm seals	2x 1/4-18 NPT, Diaphragm seals	Thread, clamp, conical port



## Process pressure transmitter series JUMO dTRANS p20

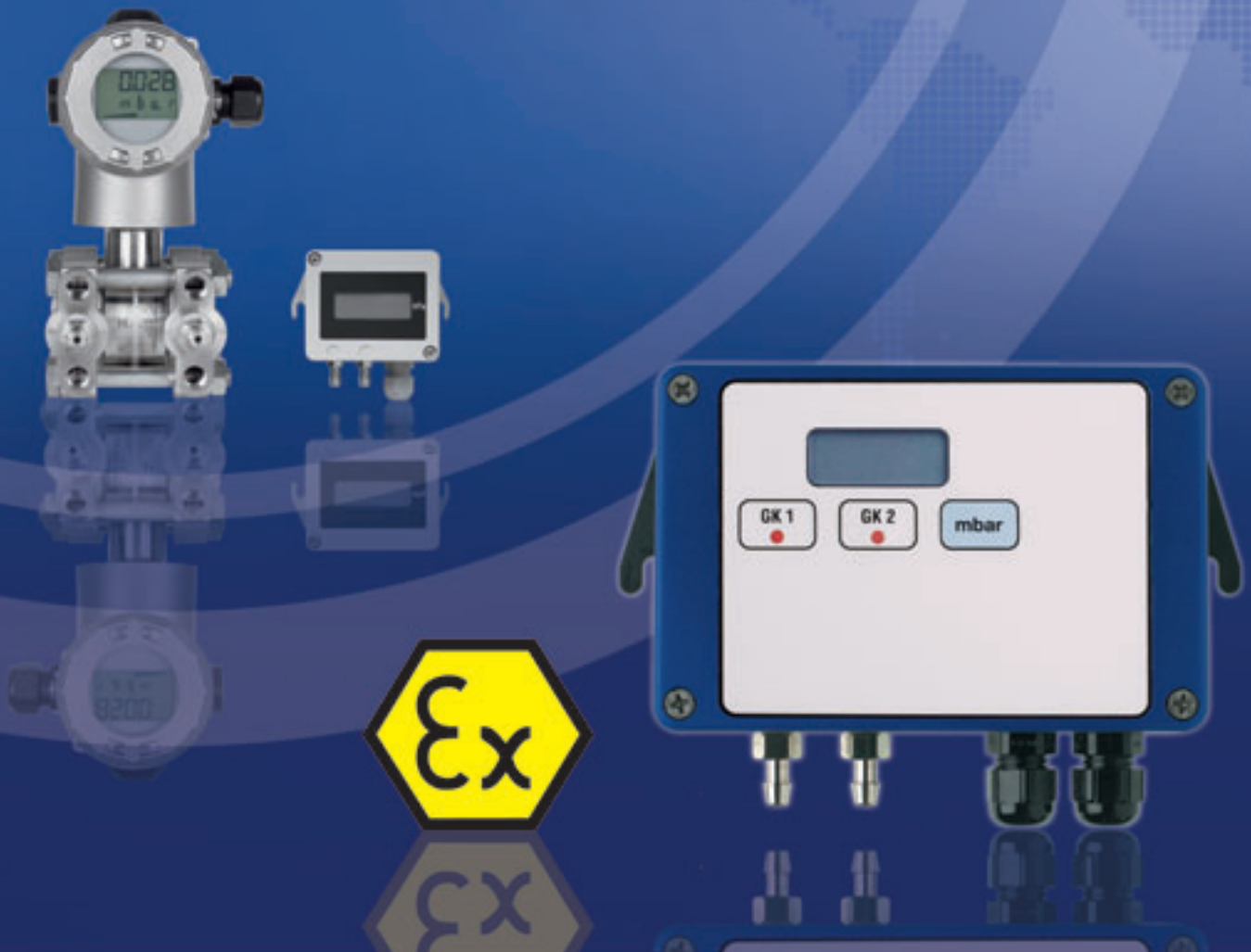


Application	Type / Data Sheet Designation	403025/26 dTRANS p20 dTRANS p20 Ex d	403022/23 dTRANS p20 DELTA dTRANS p20 DELTA Ex d
	Ex d	•	•
	Ex ia	•	•
	Process pressure	•	
	Differential pressure		•
	Flow rate		•
	Filling level		•
Technical data	Special features	maximum precision, programmable, Stainless steel sensor, Stainless steel case	maximum precision, programmable, Stainless steel sensor, Stainless steel case
	Input min. max.	rel, abs 60 mbar 600 bar	DP 1 mbar 100 bar
	Temperature of medium	–40 to +200 °C	–40 to +110 °C
	Accuracy (linearity)	0.05 %	0.07 %
	Output	4 to 20 mA 2-wire, HART	4 to 20 mA 2-wire, HART
	Process connection	Thread, hygienic connections, JUMO PEKA, Diaphragm seals	2x 1/4-18 NPT, Diaphragm seals



# JUM0 differential pressure transmitters

Our differential pressure transmitters are the ideal solution for measuring absolute pressure, differential pressure, flow rate and filling level. With their versatility and simple operation, they are suitable for less critical applications as well as explosive areas.





### JUMO differential pressure transmitter



Type / Data Sheet Designation		402005 Multi-range pressure and differential pressure transmitter	404304 Pressure and differential pressure transmitter	401050 JUMO MIDAS DP 10	404382 JUMO dTRANS p02 DELTA	403022/403023 JUMO dTRANS p20 DELTA
Application	Ex d					•
	Ex ia				•	•
	Gas	•	•	•	•	•
	Liquid			•	•	•
	Heating, air conditioning technology	•	•	•	•	•
	Filter monitoring	•	•	•	•	•
	Flow measurement		•		•	•
	Pump control			•		
	Differential pressure	•	•	•	•	•
	Flow rate		•		•	•
	Filling level				•	•
	Special features	Measuring range adjustable, optional with LCD display	with change-over contacts, very small measuring ranges, adjustable, optionally with LCD	for liquid and gaseous media	maximum precision, programmable, Aluminum case	maximum precision, programmable, Stainless steel case
Technical data	Input min. max.	DP, rel 2.5 hPa 100 hPa	DP, rel 0.5 to 1000 mbar 800 to 1200 hPa	DP, rel 0.4 bar 16 bar	DP, rel 12 mbar 25 bar	DP, rel 1 mbar 100 bar
	Temperature of medium	-10 to +50 °C	-10 to +50 °C	-15 to +100 °C	-40 to +120 °C	-40 to +110 °C
	Accuracy (linearity)	2 %	1 %	0.5 %	0.1 %	0.07 %
	Output	(0)4 to 20 mA 3-wire, DC 0 to 10 V 3-wire	4 to 20 mA 2-wire, 0 to 20 mA 3-wire, DC 0 to 10 V 3-wire	4 to 20 mA 2-wire, DC 0 to 10 V 3-wire, DC 0.5 to 4.5 V 3-wire	4 to 20 mA 2-wire, HART	4 to 20 mA 2-wire, HART
Process connection		Hose connection	Thread Hose connection	Thread, Hose connection	2 x 1/4-18 NPT, Diaphragm seals	2 x 1/4-18 NPT, Diaphragm seals



# JUMO CANtrans series

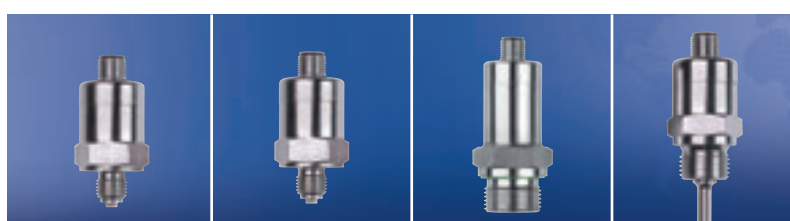
Our CANtrans series transmitters are the first choice for applications with CANopen networking.

The compact and robust sensors with IP67 protection rating and high vibration resistance (shakeproof) guarantee maximum process reliability. The integrated sensor monitoring, together with the safety mechanisms of the CAN protocol, ensure very reliable detection of measured values.

The standardized interface also allows simple integration of the sensors in all CANopen systems.



### JUMO CANtrans series for CANopen systems



Type / Data Sheet Designation		402055 JUMO CANtrans p ceramic	402056 JUMO CANtrans p	402057 JUMO CANtrans pT	902910 JUMO CANtrans T
Application	Pressure	•	•		
	Pressure and temperature			•	
	Temperature				•
	Special features	programmable, Ceramic sensor, Device profile DS 404	programmable, Stainless steel sensor, Device profile DS 404	programmable, Stainless steel sensor and Pt1000, Device profile DS 404	programmable, Sensor Pt1000, Device profile DS 404, optional: double temperature probe
Technical data	Pressure input min. max.	rel 1.6 bar 100 bar	rel, abs 0.25 bar 600 bar	rel, abs 0.25 bar 100 bar	
	Temperature input min. max.			-40 °C +125 °C	-50 °C +450 °C
	Temperature of medium	-20 to +85 °C	-40 to +200 °C	-40 to +125 °C	-50 to +450 °C
	Accuracy (linearity)	0.5 %	0.5 %	0.5 %	Class B according to DIN EN 60751
	Output	CANopen	CANopen	CANopen	CANopen
	Process connection	Thread	Thread, hygienic connections, JUMO PEKA	Thread	Thread



# JUMO PEKA and diaphragm seals

To protect the pressure sensor and to safeguard the process, diaphragm seals can be used with or without a capillary line as a connection between the measuring device and the medium to be measured. The capillary line is used for example for material resistance for aggressive media or for media with temperatures above 200°C. In addition to diaphragm seals that can be achieved with minimum surface roughness, we also offer the JUMO PEKA system that has been designed and certified as per EHEDG.





## JUMO PEKA and diaphragm seals



**JUMO Dtrans T100**  
Screw-in RTD temperature probe without/with transmitter  
type 902815



**JUMO DELOS SI**  
Precision pressure transmitter with change-over contact and display  
type 405052



**JUMO tecLine Lf-4P**  
Conductive 4-electrode conductivity measuring cell  
type 202930



**JUMO PEKA**  
process connection adapter system  
type 409711



**JUMO dTRANS p02**  
Process pressure transmitter  
type 404382



**Diaphragm seal with flange connection as per ANSI B 16.5**  
with form RF sealing strip  
type 409786

### JUMO PEKA

The process connection JUMO PEKA allows the measuring device (for different physical measuring values or electrolytic conductivity) to be connected to an application-specific process connection adapter (Clamp, Varivent, Aseptic or Orbital weld-in sleeve). Based on an easy-clean design without dead spots, the modular adapter system is specifically tailored to the requirements of hygienic processes. The rigid connector with rotatable adapter allows alignment of the measuring device and protects the flush-mounted O ring from damage during assembly. The thread allows the measuring device to be fitted and removed any number of times, simplifying assembly, cleaning and repair work.

### Diaphragm seals

Diaphragm seals, as extended process connections, protect the measuring device and its sensor from difficult ambient conditions such as contaminated, highly viscous, thickening (curdling), especially corrosive, toxic and hot media. Diaphragm seals can also be used for installation points that are difficult to access. In such cases, the pressure is transmitted to the sensor via a capillary line (long distance line) filled with filling oil.

JUMO offers two basic designs: membrane and pipe diaphragm seals. The numerous possibilities of combination with regard to the membrane material (stainless steel, titanium, PTFE etc.) and filling oil (silicone oil, high-temperature oil, vegetable oil etc.) also make them suitable for hygienic applications.



# Services & Support

It is the quality of our products that is responsible for such a high level of customer satisfaction. But our reliable after-sales service and comprehensive support are also appreciated. Let us introduce you to the key services we provide around our innovative JUMO products. You can count on them – anytime, anywhere.

**JUMO services & support – so that it all comes together!**

## Production Service



Are you looking for a competitive and efficient system or component supplier? Whether you seek metal technology, electronic modules or perfectly fitting sensors, whether small batches or mass production, – we will willingly be your partner. From development to production, we can provide all the stages from a single source. Our experienced experts will work together in close collaboration with your company to find the optimum solution for your application, and will take on all the engineering. JUMO will then make the product for you. You will benefit from state-of-the-art production technologies, as well as our uncompromising quality assurance systems.

## Customized Sensor Technology

- Development of temperature probes, pressure transmitters, conductivity sensors or pH and redox electrodes as per your requirements
- Numerous test and inspection systems
- Taking over qualification for the application
- Materials management
- Mechanical testing
- Thermal testing



## Electronic modules

- Development
- Design
- Test concept
- Materials management
- Production
- Logistics and distribution
- After-sales service



## Metal production

- Tool manufacture
- Stamping and forming systems
- Flexible sheet metal working
- Float production
- Welding, jointing, and assembly systems
- Surface engineering
- Material testing service





## Information & Training



Would you like to improve your process quality, or optimize one of your company plants? Then take us up on our offer on the JUMO homepage and participate in the know-how of a globally respected manufacturer. Under the “Services & Support” menu item, for example, you will find a highly diverse range of seminars. Available under the keyword “eLearning” are videos on specific measurement and control system topics, and under “Literature”, you can find important information for beginners and practitioners. It goes without saying that you can also download the latest version of the JUMO software you require, as well as technical documentation for old and new products.

## Product Service



For competent support right across our product portfolio, our customers have recourse at anytime to the efficient sales network we maintain on all five continents. Whether you seek advice, a selection of products, engineering or making optimum use of our products, there is always a team of competent JUMO-colleagues somewhere nearby, ready to answer your questions. You can count on us after commissioning, as well. You will get a fast response from our telephone support hotline. If an on-site fault has to be eliminated, our express repair service and our 24-hour spare part service are at your disposal. That is real security.

## Maintenance & Calibration



Our maintenance service helps you to maintain optimum system and equipment availability. In this way you prevent failure and downtime. We will work out a far-sighted maintenance concept together with your company officers, and will willingly prepare all the requisite reports, documentation and protocols. Because we know how important precise measurement and control results are for your processes, we naturally also undertake the professional calibration of your JUMO instruments on site, at your company premises. We then record the result in a calibration certificate, as defined by EN 10204.



[www.jumo.net](http://www.jumo.net)